

9.10 Fences and Gates

The station areas of the existing HPT-AB are surrounded by a station fence; the City Terminal Groups are surrounded by boundary walls. In addition at all Line Valve, Vent, Drain and Tap-off stations which are located outside of roads or highways, a station fence shall be constructed, depending on the final layout and location.

For construction works which will take place within existing stations, damages on the existing boundary walls or fencing and fence lighting etc. have to be repaired by the Contractor after completion of the installation works to the satisfaction of the owner.

Temporary fences are to be constructed to separate the construction area from the operational station area. A separate gate shall be provided in compliance with HCIS standard for the construction area. After completion of works the temporary fence, including the gate shall be removed and the original condition shall be reinstalled.

A fencing with a height of approx. 2.90 m according the typical drawing QP10-Q-471 "Typical Security Fence" and the pertinent HCIS requirements shall be provided around the new station areas; at the existing stations the existing fence has to be extended accordingly if necessary.

All steel structures have to be galvanized.

9.11 Storm Water System

At existing Stations the storm water drainage system of the new station area shall be connected to the existing drainage facilities. A storm water drainage system with open drainage channels, maintenance shafts and road gullies shall be installed, to collect the rainwater from the area of the roads and paved areas. If required, the existing capacities of shafts, pipes and channels shall be extended.

For construction works which will take place within existing stations, damages on the existing sewage, storm water and road drainage system have to be repaired by the Contractor after completion of the installation works to the satisfaction of the owner.

9.12 Cable Routes

For installation of electrical, instrumentation and control cables in general cable conduits or cable ducts with concrete pulling shafts are to be foreseen. Before start of excavation works the detailed survey of existing facilities must be performed to identify all possible underground pipes and cables at the work area. All existing underground facilities must be adequately protected to avoid any damages during construction of the new cable routes.

All cable penetrations through the shaft walls or buildings shall be provided with cable conduits and shall be closed after cable installation in compliance with the specification.